Division File
Subpart F Groundwater Monitoring
04180801 / Douglas County

CAB-O-SIL® DIVISION

CABOT CORPORATION

P. O. BOX 188, TUSCOLA, ILLINOIS 61953

TELEPHONE AREA CODE 217
TUSCOLA 253-3370
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March 28, 1984

Mr. Mark Haney
Compliance Monitoring Section
Division of Land Pollution Control
Illinois EPA
2200 Churchill Road
Springfield, IL 62706

Re. : 04180801--Douglas County
Tuscola/Cabot CD--ILD042075333
Part 725, Subpart F Groundwater Monitoring

Dear Mr. Haney:

Enclosed please find a supplement to the "Groundwater Quality Assessment Program at Cabot Corporation Plant Tuscola Illinois" which was submitted previously. This supplement includes a list of hazardous waste constituents to be analyzed in future quarterly groundwater samples taken from the plant monitoring wells.

If you have any comments or questions, please contact me.

Sincerely,

Gabriel Paci
Product Manager

GP/gvb

Enclosure

cc: WFReardon
PFTroiano
DWolfe
KLYang

HYDROPOLL, Inc.

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Phone (217) 793-1361

(SUPPLEMENT TO)

GROUNDWATER QUALITY ASSESSMENT

PROGRAM

AT

CABOT CORPORATION PLANT
TUSCOLA, ILLINOIS

(U.S. EPA I.D. NO. ILD042075333)

Date : March, 1984

Prepared by : Rauf Piskin, Ph.D., C.P.G.

LIST OF HAZARDOUS WASTE
CONSTITUENTS TO BE ANALYZED
IN QUARTERLY GROUNDWATER SAMPLES

On page 8 of the "Groundwater quality Assessment Program at Cabot Corporation Plant Tuscola, Illinois", submitted previously, it was stated that the samples from the monitoring wells and the impoundment were being analyzed to determine hazardous waste constituents in the groundwater and waste fluid. The analysis results would assist to prepare a list of hazardous waste constituents to be analyzed in future quarterly groundwater samples. When the list was completed, a copy of it was to be submitted to the IEPA.

Cabot Corporation has collected groundwater samples from five monitoring wells and a waste fluid sample from the RCRA impoundment. The samples were analyzed for base neutral extractable compounds, acid extractable compounds, pesticides, PCB's, and organic volatile compounds. A total of 114 parameter were analyzed (Appendix A). PCB's, pesticides, and the great majority of the parameters were below their respective detection limits. Only five parameters were found to be above their detection limits. These parameters, listed in Table 1, are the hazardous waste contituents to be analyzed in future quarterly samples.

Based on these constituents, the parameters to be analyzed in Table 2, page 15, of the "Groundwater Quality Assessment Program..." has been revised and presented in Table 2(Revised).

Respecfully submitted,

HYDROPOLL, INC.

Rauf Piskin, C.P.G. 5090
Hydrogeologist

APPENDIX - A

ANALYSES OF GROUNDWATER

AND

WASTE FLUID SAMPLES

Table 1. Hazardous waste constituents (priority pollutant organics) to be analyzed in quarterly groundwater samples at Cabot Corporation plant Tuscola, Illinois.

Extractibles (μg/l)	MW-1	MW-2	OW-6	OW-7	OW-8	Impoundment
Bis(2-Ethyl-Hexyl)Phthalate	150	120	130	180	23	120
Volatiles (μg/l)						
Carbon Tetrachloride	B.D.	240	B.D.	B.D.	4900	B.D.
Tetrachloroethylene	B.D.	5700	32000	89	2500	130
Methylene Chloride	B.D.	310	B.D.	B.D.	B.D.	B.D.

B.D. : Below detection

Table 2(Revised). Parameters to be analyzed, sample containers, and preservation procedures

PARAMETER	CONTAINER	PRESERVATIVE	HOLDING TIME
DRINKING WATER			
Arsenic	P,G **	HNO^3 to pH< 2	6 months
Barium	P,G	HNO^3 to pH< 2	6 months
Cadmium	P,G	HNO^3 to pH< 2	6 months
Chromium	P,G	HNO^3 to pH< 2	6 months
Fluoride	P,G	Cool, 4° C	7 days
Lead	P,G	HNO^3 to pH< 2	6 months
Mercury	P,G	HNO^3 to pH< 2	13-38 days
Nitrate (N)	P,G	Cool, 4° C	24 hours
Selenium	P,G	HNO^3 to pH< 2	6 months
Silver	P,G	HNO^3 to pH< 2	6 months
Endrin	Amber Glass	Cool, 4° C	3 days
Lindane	Amber Glass	Cool, 4° C	3 days
Methoxychlor	Amber Glass	Cool, 4° C	3 days
Toxaphene	Amber Glass	Cool, 4° C	3 days
2, 4-D	Amber Glass	Cool, 4° C	3 days
2, 4, 5-TP silvex	Amber Glass	Cool, 4° C	3 days
Radium	P	HNO^3 to pH< 2	6 months
Gross Alpha	P	HNO^3 to pH< 2	6 months
Gross Beta	P	HNO^3 to pH< 2	6 months
Turbidity	P	Cool, 4° C	7 days
Coliform Bacteria	P	Cool, 4° C	6 hours
WATER QUALITY			
Chloride	P,G	Cool, 4° C	7 days
Iron	P,G	HNO^3 to pH< 2	6 months
Manganese	P,G	HNO^3 to pH< 2	6 months
Phenols	G	H^2SO4 to pH<2	24 hours
Sodium	P,G	HNO^3 to pH< 2	6 months
Sulfate	P,G	Cool, 4° C	7 days
CONTAMINATION INDICATORS			
pH	P,G	Det.on site Cool, 4° C	6 hours
Specific Conductance	P,G	Cool, 4° C	24 hours
HAZARDOUS WASTE CONSTITUENTS	G	Cool, 4° C	
Bis(2-Ethyl-Hexyl) phthalate			
Carbon tetrachloride			
Methylene chloride			
Tetrachloroethylene			

** P,G Plastic or Glass